The Economic, Financial, and Tax Benefits of Owning Purebred Dairy Cattle for Embryo Transfer Programs

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Since the early 1970's, tax-advantaged investments have become increasingly popular and numerous. Advertisements in financial publications list airplanes, machinery, oil and gas production, real estate, historic buildings, and computers as possible "tax shelters." The list goes on to include exotic shelters such as motion pictures, records, books, artwork, and Broadway plays. Each investment seems to have spectacular advantages to certain groups of taxpayers.

Why have all of these investment opportunities grown so spectacularly? The major reason is the favorable treatment given productive investments by our Federal government. Tax advantages have proved necessary because of the low historic return associated with investments in some industries.

Investors have also become aware of the increasing size of the "bite" being taken out of their incomes by taxes. Inflation produces "bracket creep" and real income decreases. Thus, by investing in industries such as those mentioned above, control over tax dollars may be increased. In many cases, the entire tax liability may be eliminated, past taxes paid may be recovered, or benefits carried into the future. In effect, the government helps the taxpayer pay for his investment with the dollars that would have otherwise been paid for taxes.

The Internal Revenue Code includes several basic concepts which lend themselves to these investments. Among these concepts are :

(1) Certain expenditures associated with the investment may be deducted, rather than capitalized;

(2) Many investments in productive assets decrease in value over time and are, therefore, subject to depreciation or depletion;

(3) Deductions may be greatly increased by the use of borrowed funds, or "leveraging";

(4) Investment tax credits permit a percentage of the investment (including the portion purchased through leverage) to be directly offset against the regular tax liability; and

(5) Special tax treatment is afforded long-term capital gains (i.e. gains from the sale of capital assets owned for the required holding period).

Thus, benefits from most tax shelters come in the form of tax savings, not spectacular cash flow. And, of course, any investments in such assets are subject to a fairly high degree of risk. Such investments, therefore, should not be made before consulting an accountant or tax expert who can examine the benefits of the investment for that particular individual.

One increasingly popular, yet still relatively unknown, tax advantaged investment is that of purebred cattle breeding. All of the above-mentioned tax benefits and deductions are available to the cattle breeding investor. This unique investment will be the focus of the remainder of this discussion and analysis.

Before examining the economic and financial considerations of investments in cattle breeding, a brief explanation of the breeding process is in order. Scientific and biological advances in recent years have greatly benefited the cattle breeder by making possible a process known as "Embryo Transfer" (ET).

The cattle breeding investor purchases a registered, high producing, highly classified Holstein cow capable of producing calves of

high merchandising value. He will likely take advantage of a knowledgeable agent to aid in making a selection. Expertise in the selection process is a necessary ingredient for the investment to attain maximum profitability.

The Holstein cow is the most desirable breed of dairy animal in the United States. The Holstein produces more milk (another source of income) and, in general, is a larger, hardier, healthier animal. These animals must receive constant attention. Because of strict laws concerning food and health safety, inspections are made quite often. The dairyman may sell his product only if he has the necessary inspection certificates.

The donor cow is treated with certain hormones to induce superovulation, or increased production of embryos. Then the fertile cow is artificially inseminated with multiple doses of semen from a proven bull. Approximately one week later, the embryos are recovered through a catheter placed in the uterus. They are then isolated using a microscope. This process is non-surgical so there is little risk to the donor's health or future fertility.

Fertilized embryos are transferred to a recipient cow. Surgical methods have proven most effective in terms of pregnancy rates for such transfers. The complexity of this process indicates the necessity of the professionalism of an expert management team. The impregnated recipient cow may, at this point, be sold to another farmer, or may be raised until the birth of the calf.

We will first examine the economic and financial benefits of this process. A Holstein dairy cow in the $30,000 to $60,000 appraised value

range will command a value of between $5,000 and $10,000 for its female offspring. Male bull calves are worth little to the dairyman unless they have superior breeding potential, in which case they might either be retained as a source of semen or sold to another breeder. The market for bulls is somewhat more unpredictable and volatile than that for cows, with young bulls yielding a price of anywhere from $1,000 to $15,000, depending on their breeding potential. The number of embryo transfers per cow will vary, but Stookey Holsteins (Leesburg, Indiana) guarantees a minimum of ten embryo transfers in addition to the calves born to the brood cow itself. (Most cows will produce a number much greater than this minimum guaranteed number.) Thus, if approximately half of these calves are female, the cow could produce a minimum of approximately $30,000 in income from produced offspring. And, of course, this amount will be higher if the quality of the calves produced is high.

These offspring, if sold immediately, would produce income taxable as ordinary income to the investor. If, however, these calves are held for a period of two years or more, the sale proceeds would be taxable at the much preferred long-term capital gains rates. In addition, the two year old females (heifers) will be worth about as much as the original cost of their parent because of their own breeding potential. Thus, the investor gets a naturally multiplying investment.

The cash flow from sale of offspring makes the investment a unique one. This revenue will likely compensate for the costs of both debt service and management fees. These represent the economic and financial benefits of such an investment. These benefits are maximized when the investment is financed over the productive life of the cow.

The economic and financial benefits are but a part of the overall benefits of cattle breeding. Most investors in cattle are highly taxed individuals and corporations who have been attracted to cattle breeding for its tax benefits. For business and tax considerations, the dairy cow is viewed as productive, capital equipment and enjoys tax benefits similar to those for factory equipment and real estate. But the cow is unlike the ordinary piece of "equipment" as we would normally picture it.

> Consider, as a productive mechanism, a cow is a masterpiece of engineering excellence. It is completely self-contained, not subject to technological obsolescence, and fuel efficient. Its maintanence requirements never change and can be programmed. No spare parts are needed. No attachments or add-ons are required. It doesn't rust, never needs an overhaul, is self-lubricating, reliable, and has a predictable economic life.[1]

Thus, purchases of purebred dairy cattle are truly unique among today's tax-advantaged investments.

The tax benefits of investments in purebred dairy cattle fall into three main categories: 1) The investment tax credit, 2) depreciation, and 3) the deductibility of costs incurred. These deductions and the credit may be used to offset ordinary income from other sources, such as from a regular job.

The investment tax credit represents a dollar-for-dollar reduction of the regular tax liability. The amount of the credit on five-year recovery property (as classified under ACRS guidelines to be explained later) is equal to 10% of the eligible investment (in this case, the purchase price). The credit is taken in the year the equipment is placed in service.

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[1]Pinehurst Embryo I: An Informational Brochure (Sheboygan Falls, Wisconsin: Pinehurst Genetics, Inc., 1981), p. 6.

If property on which investment tax credit was taken is disposed of before the end of the recovery period (five years), a portion of the original credit taken must be paid back on that year's tax return. For property in the five-year class, the "recapture" percentage (the amount to be repaid) decreases, from 100%, by 20% for each full year the property is held. Thus, for example, if the property is sold within the third year, 60% of the original tax credit must be repaid.

However, recapture provisions will rarely apply to this situation. The full benefits, as explained more fully below, accrue if the property is held until it can be fully depreciated, at which time no investment tax credit is recapturable.

Depreciation of the equipment is another tax benefit of owning dairy cattle. Any livestock acquired for work, breeding, or dairy purposes that are not kept in an inventory account may be depreciated. Dairy cattle fall into the five-year class of capital assets under the new Accelerated Cost Recovery System for figuring the allowable depreciation deduction each year. Prescribed rates are as follows: first year, 15%; second year, 22%; and third through fifth years, 21% each. These rates are applied against the original cost of the livestock. This depreciation deduction may be used to offset income from other sources.

The ACRS ignores the actual date the equipment is placed in service. Thus, no matter what day of the year the dairy cow is purchased and placed in service, the deduction for that year will be 15% of the cost. Also ignored in the calculations for the deduction is any salvage value of the equipment. Through this deduction, because of the reduced regular tax liability, the government essentially helps the investor to

pay for his investment with dollars that would otherwise have been paid for taxes.

Because cattle are considered personal property, if the depreciated animal is sold, any gain will be subject to recapture as ordinary income to the extent of depreciation deductions taken. Raised cattle may not be depreciated because they, of course, have no basis (or allocable cost) to the investor.

The last tax benefit of the investment in dairy cattle is the deductibility of related costs incurred. Almost any related expenditures are deductible as farm business expenses and used to offset other income. One such expenditure for the dairy cattle investor is insurance on the animal. All-risk insurance on the value of the cow is available at a cost of 4½% of the insured value per year. Again, the government, in effect, helps to pay for this insurance by allowing it as an ordinary business deduction.

Housing, feed, and management costs, if incurred, would also be fully deductible. However, in the case of cows purchased through Stookey Holsteins, these costs are borne by Stookey in return for the milk produced. This arrangement allows the buyer to house his animals without additional cost or cash expenditure. Thus, the only major expense subsequent to the purchase of the animal, other than interest payable with the principal, is the insurance cost.

Semen and veterinary costs would also be billed to the buyer. Under agreement with Stookey Holsteins, however, these costs are not to exceed $250 per year unless superovulated. The amount of these expenses is likely to be low because of the increasing amount of this veterinary

work being done by Stookey personnel. Thus, these costs are negligible as an additional cost to the investor.

In effect, investment in breeding dairy cattle is a method by which ordinary income (taxed at regular rates) may be converted into capital gains (of which only 40% is taxable at ordinary rates). The buyer "uses the deductions attributable to raising the cattle to offset ordinary income from other sources, then sells the raised cattle at long-term capital gains rates.[2] This is the main reason why highly taxed individuals and corporations are attracted to dairy cattle as a tax advantaged investment.

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[2]Robert and Carol Tannenhauser, Tax Shelters: A Complete Guide (New York, Harmony Books, 1978), p. 209.

Table 1

TAX CONSIDERATIONS

(Assuming 50% tax bracket, married, filing jointly. Purchase on December 31, 1981. Interest payable each December 31 at an annual rate of 12%.)

Purchase price: $50,000

Payment schedule:

December 31, 1981	$12,500 down payment
" " , 1982	$ 9,500 plus interest
" " , 1983	$ 9,500 plus interest
" " , 1984	$ 9,500 plus interest
" " , 1985	$ 9,000 plus interest

5-year property for ACRS depreciation rates - New Equipment

1981	$ 7,500 Write-off (15%)
1982	$11,000 Write-off (22%)
1983	$10,500 Write-off (21%)
1984	$10,500 Write-off (21%)
1985	$10,500 Write-off (21%)

Interest Charges:

1981	$ 000.00
1982	$4,500.00
1983	$3,360.00
1984	$2,220.00
1985	$1,080.00

Investment Tax Credit :

(taken 1981 only) $5,000

Equivalent 50% write-off $10,000

Expenses: (Insurance, all-risk, at 4½% of insured value)

1981	$ 000.00
1982	$2,250.00
1983	$2,250.00
1984	$2,250.00
1985	$2,250.00

Table 2

YEAR BY YEAR TAX CONSIDERATIONS

(Same assumptions as in previous table)

1981	ITC	$5,000	Equivalent	$10,000	Write-off
	Depreciation			$ 7,500	" "
1981	Total Write-off			$17,500	
1982	Depreciation			$11,000	Write-off
	Interest			$ 4,500	" "
	Expenses			$ 2,250	" "
1982	Total Write-off			$17,750	
1983	Depreciation			$10,500	Write-off
	Interest			$ 3,360	" "
	Expenses			$ 2,250	" "
1983	Total Write-off			$16,110	
1984	Depreciation			$10,500	Write-off
	Interest			$ 2,220	" "
	Expenses			$ 2,250	" "
1984	Total Write-off			$14,970	
1985	Depreciation			$10,500	Write-off
	Interest			$ 1,080	" "
	Expenses			$ 2,250	" "
1985	Total Write-off			$13,830	

Table 3

NET OUT-OF-POCKET COSTS TO INVESTOR BEFORE REVENUE FROM PRODUCED OFFSPRING

1981	Total cash payments:		
	Down payment		$12,500
	Less: Total Write-off	$17,500	
	Equivalent Tax Savings (50% bracket)		8,750
	NET COST BEFORE OFFSPRING REVENUE		$ 3,750
1982	Total cash payments:		
	Principal payment	$9,500	
	Interest	$4,500	
	Expenses	$2,250	$16,250
	Less: Total Write-off	$17,750	
	Equivalent Tax Savings (50% bracket)		8,875
	NET COST BEFORE OFFSPRING REVENUE		$ 7,375
1983	Total cash payments:		
	Principal payment	$9,500	
	Interest	$3,360	
	Expenses	$2,250	$15,110
	Less: Total Write-off	$16,110	
	Equivalent Tax Savings (50% bracket)		8,055
	NET COST BEFORE OFFSPRING REVENUE		$ 7,055

Table 3 (cont'd)

NET OUT-OF-POCKET COSTS TO INVESTOR BEFORE REVENUE FROM PRODUCED OFFSPRING

1984	Total cash payments:		
	Principal payment	$9,500	
	Interest	$2,220	
	Expenses	$2,250	$13,970
	Less: Total Write-off	$14,970	
	Equivalent Tax Savings (50% bracket)		7,485
	NET COST BEFORE OFFSPRING REVENUE		$ 6,485
1985	Total cash payments:		
	Principal payment	$9,000	
	Interest	$1,080	
	Expenses	$2,250	$12,330
	Less: Total Write-off	$13,830	
	Equivalent Tax Savings (50% bracket)		6,915
	NET COST BEFORE OFFSPRING REVENUE		$ 5,415

Thus, over the five-year period, the $50,000 asset has been acquired at a net cost of $30,080, producing a gain (through tax advantages only) of $19,920, calculated as follows:

Purchase price		$50,000
Net cost to taxpayer:		
1981	$3,750	
1982	$7,375	
1983	$7,055	
1984	$6,485	
1985	$5,415	30,080
Net gain from tax advantages		$19,920

Table 4

REVENUE FROM SALE OF OFFSPRING

(Total over 4 years of contract, assuming only the guaranteed 10 embryo transfer calves plus 4 calves, one per year, all held at least 2 years and sold at unrealistically low minimum prices.)

Seven (7) heifers	@	$5,000 ea.	= $35,000
Seven (7) bulls	@	$1,000 ea.	= $ 7,000
Total offspring revenue			$42,000
Less: Long-term capital gain deduction			
		(60% x $42,000)	25,200
Gain taxable at ordinary rates			$16,800
		Tax rate	x 50%
Tax on long-term capital gain			$ 8,400

Total revenue	$42,000
Less tax	8,400
After-tax gain	$33,600

TOTAL GAINS:

Net gain from tax advantages	$19,920
After-tax gain from sale of offspring	$33,600
Total net gain over 4 years	$53,520

NOTE:

The revenue figures used above are minimums and are used only for purposes of illustration. Sales prices of offspring, in all likelihood, would be much higher depending on the market. In addition, most quality cows will produce many more than ten embryo transfers. Thus, total gains would likely be much greater.

Individuals and corporations will use the benefits of such an investment in unique ways, although the benefits themselves are identical. For example, taxation on the raised cattle may be deferred until other sources of income are lower and, thus, subject to lower marginal tax rates. This may be done by continually reinvesting any sale income immediately. In addition, leverage may once again be used to the advantage of the investor if he borrows additional funds for investment by using the raised cattle as security. In this way, the investor may increase the size of his herd without investing additional funds.

Use of the benefits of this type of investment can be best demonstrated by case studies of such investors. Following are several examples of the ways which dairy cattle investments are being used by different individuals. (Note: The persons mentioned here are actual investors in Holstein cattle through Stookey Holsteins, Leesburg, Indiana. Names used, however, are fictional.)

Case 1

Mr. Jones is a young man, age 23, who inherited an extremely large family wealth two years ago. Included in his portion of the estate were a fully paid-for home and several automobiles. Thus, out-of-pocket expenses are quite minimal.

In addition to the home, his inheritance included a very large investment in income-producing financial assets. Thus, he receives a large interest check each month which is taxable as ordinary income. For the first year he paid income taxes on the whole amount at the maximum marginal rate of 70%. When he realized how large a "bite" of

his income this was, he searched for shelters. Included in his portfolio was an investment with Stookey Holsteins.

In Mr. Jones' case, he is thus able to convert this ordinary into a tax deduction, while the government "pays" for 70% of his investment costs through these deductions. The control over his income that he formerly lacked has been regained. Excess cash is invested instead of paid to the government for taxes. In this way, Mr. Jones' net worth will increase at a much higher rate.

Case 2

Mr. Miller is an automotive engineer for Fisher Body in Lansing, Michigan. He is sixty years old and earns approximately $75,000 per year. His home is fully paid for, but he is becoming increasingly concerned about the mandatory retirement that awaits him in a few short years. Although he will have a sizeable pension upon retirement, Mr. Miller has realized how much of his income is being lost by making no tax-advantaged investments.

By investing as much as possible for the next five years, he can claim the costs as deductions against his large income now and, following retirement, he can sell the raised offspring as cash is needed. At that time, he will have lower taxable income and lower marginal tax rates. In addition, income from sale of offspring will be taxed at the much lower long-term capital gains rates. Thus, Mr. Miller can retain a much higher percentage of his income over the long-term than if he had made no such investments.

Case 3

Dr. Jacobs is a graduate of the Indiana University School of Medicine. He is 37 years old and operates as part of a medical clinic in a small Indiana town.

Dr. Jacobs had no prior farm experience until he learned of dairy cattle as a tax sheltered investment. The main goal of Dr. Jacobs' investment portfolio, of which Holsteinsare a large part, is to eliminate all tax liability each year. By investing all he can and re-investing all profits, Dr. Jacobs eliminates apprcximately 50% of his tax liability through use of the depreciation deduction and investment tax credits. The remaining 50% is eliminated through other tax-sheltered investments.

Since Dr. Jacobs has no need for any cash flow from this investment, his net worth continues to grow rapidly as his herd size also grows. He has gained total control over his income by investing in tax sheltered investments and paying no taxes whatsoever.

(Some people might say Dr. Jacobs is not paying his fair share of the cost of running our government. Our government, on the other hand, has encouraged such investments made by thousands of "Dr. Jacobs" throughout the United States. Our government has, in effect, chosen to encourage productive investment rather than collect taxes.

Each of the three individuals described has used the tax benefits of an investment in Holstein cattle to achieve a goal that he considers most beneficial. A common thread runs through each case, however. These individuals wish to have control over the money for

which they work so hard rather than just handing a large portion of their earnings over to the government and retaining smaller portions of any raises they might receive. By offering such incestives as investment tax credits and depreciation deductions, our government has encouraged individuals to do this.

Who should invest in Holstein cattle? The first requirement is access to fairly large amounts of cash (or participation in a joint venture) for the principal and interest payments. It is indeed rare, however, for additional cash to be necessary (other than the revenue from sale of offspring) after the first or second payments.

The real benefits of the investment accrue to those investors in high tax brackets. Individuals with lower incomes can also benefit but not to as great an extent. The portion of the investment "paid" by the government through tax credits and deductions will be higher for those in higher marginal tax brackets. Any prospective purchaser should, of course, consult his own tax advisor, conduct his own independent study, and make his decision accordingly.

Thus, by combining the tax benefits and the economic benefits, Holstein cattle investments are likely to become increasingly popular in the future as more and more people seek to reduce the tax "bite" from their paychecks.

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The presentation and numerical analysis herein is based in part on information obtained from Jack Stookey, Stookey Holsteins, Leesburg, Indiana. However, specific terms of purchase contracts are to be completely independent of any information contained in this analysis.

Further information on this subject and details concerning investments may be obtained through:

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